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Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

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FEDERAL COMMUNICATIONS COMMISSION
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In the Matters of)

Access Charge Reform)

CC Docket No. 96-262

Price Cap Performance Review for
Local Exchange Carriers)

CC Docket No. 94-1

Request for Amendment of the Commission's
Rules Regarding Access Charges Reform and
Price Cap Performance Review for Local
Exchange Carriers)

RM No. 9210

**COMMENTS OF AT&T CORP. TO
UPDATE AND REFRESH THE RECORD**

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TABLE OF CONTENTS

SUMMARY	i
I. THE COMMISSION SHOULD PRESCRIBE COST-BASED ACCESS CHARGES AS SOON AS POSSIBLE	3
II. THE COMMISSION SHOULD NOT ADOPT THE LECS' PRICING FLEXIBILITY PROPOSALS, NOR SHOULD IT GRANT AUTHORITY FOR MERGERS OR IN-REGION INTERLATA SERVICES WHILE ACCESS CHARGES REMAIN AT INFLATED LEVELS	8
A. Pricing Flexibility	9
B. InterLATA Authority	11
C. LEC Mergers and Acquisitions	12
III. THE COMMISSION SHOULD GRANT AT&T'S PETITION FOR PARTIAL RECONSIDERATION OF THE X-FACTOR ORDER AND SHOULD INCREASE THE X-FACTOR	14
A. Data From the FCC Staff's Analysis Further Confirm That the LECs' X-Factor Is Substantially Understated	16
B. The Sharp Rise in the Interstate Rates of Return of the Price Cap LECs in 1996 and 1997 Effectively Demonstrates the Pronounced Increase in LEC Interstate Productivity	22
C. Recent Data Further Confirm the Propriety of Requiring Reinitialization of LEC Access Charges Back to the 1995 Tariff Year ...	24
CONCLUSION	27

SUMMARY

AT&T welcomes this opportunity to "update and refresh" the record in the proceedings relating to the petition for rulemaking filed by the Consumer Federation of America, *et al.* ("CFA Petition") and the *Access Charge Reform* docket, as well as the petitions for reconsideration of the Commission's Fourth Report and Order in the *Price Cap Performance Review* proceeding (CC Docket No. 94-1) ("*X-Factor Order*").

First, the Commission should immediately grant the CFA Petition, and should adopt mechanisms to reduce access charges to cost as soon as possible. The parties commenting on the CFA Petition amply demonstrated that the Commission's key assumptions underlying its so-called "market-based" approach to access reform -- namely, that competitive entry through unbundled network elements would drive access charges to cost -- have been rendered factually invalid as a result of changed circumstances since the Commission adopted that plan. Events over the past several months simply reinforce those showings. Competition that is robust and widespread enough to put downward pressure on access charges has not developed anywhere in the nation, nor is it likely to anytime soon. The Commission should acknowledge this reality and accelerate the timetable on the "prescriptive backstop" to the market-based approach that it previously adopted.

In view of the complete lack of effective access competition, the Commission certainly should not adopt the "pricing flexibility" proposals that Bell Atlantic and Ameritech recently put forward. Without substantial competition, the local exchange carriers' market power remains fully intact, and under those circumstances pricing flexibility, such as geographic deaveraging, simply allows them to engage in predatory pricing and other anticompetitive

schemes that would squelch competitive entry. Indeed, far from adopting pricing flexibility, which is grossly premature, the Commission should be vigorously protecting other markets from the encroachment of the LECs' overwhelming market power in access services. In particular, the Commission should not approve any Section 271 applications by Bell Operating Companies as long as access charges remain above cost, nor should it permit the LECs to merge with other LECs, which would both remove the most logical potential competitors in these markets as well as increase the efficacy of the various anticompetitive schemes that above-cost access charges facilitate.

Finally, the Commission should grant AT&T's petition for partial reconsideration of the *X-Factor Order*. As AT&T has shown, the Commission erred by basing the X-Factor on total company productivity data, rather than interstate-only data. The data show that productivity in interstate services has been growing much more rapidly than total company productivity, and as a result the X-Factor is substantially understated. Indeed, this is dramatically confirmed by the pronounced increase in interstate rates of return experienced by the LECs' in 1996 and 1997. The Commission should also adjust the LECs' price cap indices to account for the fact that the 6.5 percent X-Factor should have been applied in 1995 as well as 1996.

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Pursuant to Sections 1.415 and 1.419 of the Commission's Rules, 47 C.F.R. §1.415, 1.419, and the Commission's Public Notice, FCC 98-256, released October 5, 1998 ("Notice"), AT&T Corp. ("AT&T") respectfully submits the following Comments to update and refresh the record in the above-captioned proceedings.

As the Commission is aware, a substantial number of both consumer and business groups have recently demonstrated that events since the Commission issued the *Access Reform Order*¹ have undermined the factual predicate for the Commission's so-called "market-based" approach to access reform, and have therefore called upon the Commission to adopt mechanisms to reduce the local exchange carriers' ("LEC") access charges to cost as soon as

¹ *Access Charge Reform, et al.*, CC Docket No. 96-262 et al., First Report and Order, 12 FCC Rcd. 15982 (1997) ("*Access Reform Order*"), *aff'd sub nom. Southwestern Bell Tel. Co. v. FCC*, 153 F.3d 523 (8th Cir. 1998).

possible. Similarly, AT&T and others also petitioned for partial reconsideration of the Commission's companion *X-Factor Order*,² and have demonstrated that the X-Factor should be substantially increased. The Commission's Notice asks the parties to "update and refresh" the record in these proceedings, and to comment on certain pricing flexibility proposals put forward recently by Bell Atlantic and Ameritech. Notice at 1-2.

As shown below in Part I, the events of the past few months have done nothing but confirm that the Commission's factual assumptions underlying its market-based approach are invalid and should be revisited. Accordingly, the Commission should immediately grant the Petition for Rulemaking of the Consumer Federation of America, *et al.* ("CFA Petition"), and adopt mechanisms to drive access charges to cost-based levels as soon as possible. For similar reasons, as shown in Part II, the Commission certainly should *not* adopt the LECs' proposals for increased pricing flexibility. Indeed, the Commission should immediately announce that, until a LEC's access charges have been reduced to cost, the Commission will take a very dim view of any applications filed by that LEC for approval of mergers, acquisitions, or in-region interLATA authority. Until access charges have been reduced to cost, all of these activities pose grave risks to competition in any market that is vertically or even horizontally related to the local exchange served by the LEC. In all events, as shown in Part III, the Commission should immediately grant AT&T's Petition for Partial Reconsideration of the *X-Factor Order*

² *Price Cap Performance Review for Local Exchange Carriers, Access Charge Review, Fourth Report and Order in CC Docket No. 94-1 and Second Report and Order in CC Docket No. 96-262, 12 FCC Rcd. 16642 (1997) ("X-Factor Order"), review pending sub nom. United States Telephone Association v. FCC, D.C. Cir. Nos. 97-1469, et al.*

and increase the LECs' X-Factor, so as to ensure that consumers obtain the full benefit of the enhanced LEC productivity (and profitability) created by the Commission's policies.

I. THE COMMISSION SHOULD PRESCRIBE COST-BASED ACCESS CHARGES AS SOON AS POSSIBLE.

As of today, competition in the local exchange and exchange access markets remains minimal, and there is no prospect that competition will develop in the foreseeable future that would be substantial enough to drive access charges to economic cost. Indeed, events since the parties filed comments on the CFA Petition have amply confirmed that the Commission should adopt mechanisms to reduce access charges to economic cost as soon as possible.

In the *Access Reform Order*, the Commission recognized that access charges were substantially above economic cost and adopted a combination of two approaches to achieve cost-based, efficient rates. The Commission decided, in the first instance, to rely on "market forces" to reduce access charges; but the Commission also indicated that if at any time it determined that "competition is not developing sufficiently for the market-based approach to work" -- and in all events no later than 2001 -- it would employ a "backstop" of prescribed rates based on forward-looking cost studies. *Access Reform Order*, ¶¶ 44-48, 263, 267. The Commission repeatedly made clear, however, that its so-called "market-based" approach to access reform was based on the assumption that new entrants could achieve widespread entry quickly by purchasing unbundled network elements at cost-based rates. *Id.*, ¶¶ 32, 262, 337.

In the comment cycle concerning the CFA Petition, AT&T and many other commenters demonstrated that the factual assumptions underlying the market-based approach had been

subsequently undermined by events following the Commission's issuance of the *Access Reform Order*.³ The commenters documented in great detail the incumbent LECs' subsequent extensive efforts to forestall competitive entry into their markets. For example, many parties noted the devastating impact of the Eighth Circuit's decision to vacate 47 C.F.R. § 51.315(b) concerning combinations of network elements,⁴ a decision which has since opened the way for the LECs to impose myriad anticompetitive restrictions on the use of network element combinations that has rendered them infeasible as a practical matter. *See AT&T CFA Comments* at 8-12 (giving examples). The commenters also documented many other anticompetitive strategies adopted by the LECs, as well as their campaign of endless litigation, on every conceivable topic and in every conceivable forum, to tie up its competitors. *See id.* at 12-16.

The numerous barriers to competition documented in the comments on the CFA Petition still exist today. As the Commission itself has recognized, competitive entry into the local and exchange access markets today remains negligible. For example, the Commission recently noted that "incumbent LECs are still the sole actual providers of local exchange and exchange access services to the vast majority of mass market customers in most areas of the

³ *See Request for Amendment of the Commission's Rules Regarding Access Charge Reform and Price Cap Performance Review for Local Exchange Carriers*, Comments of AT&T Corp., pp. 6-16 (filed January 30, 1998) ("*AT&T CFA Comments*"); *Id.*, Reply Comments of AT&T Corp., pp. 3-6 (filed February 17, 1998) (citing other comments) ("*AT&T CFA Reply Comments*").

⁴ *Iowa Utilities Board v. FCC*, 117 F.3d 1068 (8th Cir.), *on rehearing*, 120 F.3d 753, *cert. granted*, 118 S.Ct. 879 (1998).

United States."⁵ Moreover, "[i]ncumbent LECs continue to dominate the market for local exchange and exchange access services to [large] business customers." *MCI WorldCom Merger Order*, ¶ 172; *AT&T-TCG Merger Order*, ¶ 26. Indeed, the Commission has specifically noted that "[c]ompetition is still in its infancy in the vast majority of local areas," and that the evidence shows that "even in the market for business customers in the New York metropolitan area" -- the most competitive market in the country -- "the incumbent LEC has lost only six percent of the market to competitors." *MCI WorldCom Merger Order*, ¶ 168 (citing New York Public Service Commission analysis).⁶ Such a miniscule level of entry is simply insufficient to place any significant competitive pressure on the incumbent LECs' access charges. Thus, it is not surprising to find that all of the price cap LECs continue to price at the maximum allowed by the price cap indices in virtually every basket.⁷

⁵ *Application of WorldCom, Inc. and MCI Communications Corporation for Transfer of Control of MCI Communications Corporation to WorldCom, Inc.*, CC Docket No. 97-211, Memorandum Opinion and Order, ¶ 169 (rel. September 14, 1998) ("*MCI WorldCom Merger Order*"); see also *Applications of Teleport Communications Group, Inc., Transferor, and AT&T Corp., Transferee, For Consent to Transfer Control of Corporations Holding Point-to-Point Microwave Licenses and Authorizations to Provide International Facilities-Based and Resold Communications Services*, CC Docket No. 98-24, Memorandum Opinion and Order, ¶ 24 (rel. July 23, 1998) ("*AT&T-TCG Merger Order*") (same).

⁶ See also *Prescribing the Authorized Unitary Rate of Return for Interstate Services of Local Exchange Carriers*, CC Docket No. 98-166, Notice Initiating a Prescription Proceeding and Notice of Proposed Rulemaking, FCC 98-222, ¶ 20 ("The RBOCs and rate-of-return ILECs both provide interstate services, [but] their primary business is still the provision of [local] telephone service and neither is subject to any meaningful competition for regulated telecommunications services in their service area").

⁷ The current cap for LECs' access prices is approximately \$23 billion, but the LECs' filed rates are currently only a paltry \$94 million below this cap. Most of this headroom is attributable to Ameritech's (\$27 million) and GTE's (\$23 million) pricing in the Trunking basket. These determinations are based on a comparison of the LECs' price cap basket PCIs
(continued...)

Unfortunately, it is still all too true that access charges have been reduced only when the Commission has taken action, not by any "market forces."

Moreover, it remains unlikely that new entrants will be able to make significant headway in the foreseeable future, just as it was when CFA first filed its Petition. Indeed, none of the incumbent LECs is any closer to providing full, nondiscriminatory access to unbundled network elements than it was a year ago. Just within the past two weeks, the Commission denied BellSouth's application for in-region interLATA authority in Louisiana under Section 271, on the grounds that BellSouth is still not offering nondiscriminatory access to network element combinations, OSS interfaces, unbundled loops, unbundled switching, unbundled transport, or collocation.⁸ Similarly, the California Public Utility Commission staff recently issued a scathing report on the state of Pacific Bell's compliance with Section 251, and concluded that Pacific Bell does not provide network element combinations or collocation on a nondiscriminatory basis.⁹ Similar orders and findings abound across the nation.

As these orders and studies reveal, network element based competition is not a reality, nor is it likely to be any time soon, even if the Supreme Court reverses the Eighth Circuit and upholds the Commission's rules concerning network element combinations. Such a ruling

⁷ (...continued)
and APIs as filed in the LECs' TRPs for 1998 Annual filings, chart IND-1.

⁸ *Application of BellSouth Corporation, BellSouth Telecommunications, Inc., and BellSouth Long Distance, Inc., for Provision of In-Region, InterLATA Services in Louisiana*, CC Docket No. 98-121, Memorandum Opinion and Order, ¶¶ 66-73, 91-160, 164-70, 189-200, 202, 210-34 (rel. October 13, 1998).

⁹ California PUC Telecommunications Division Final Staff Report, *Pacific Bell and Pacific Bell Communications Notice of Intent to File Section 271 Application for InterLATA Authority in California* (October 5, 1998).

would leave unresolved countless other issues that are being litigated all over the country, including prohibitively expensive non-recurring charges, unreasonable restrictions on the use of intellectual property, unreasonable restrictions on collocation, and many other anticompetitive ILEC practices. Moreover, it remains unlikely that ILECs will soon provide a workable, nondiscriminatory OSS interface that would be capable of processing the volume of orders necessary for a level of competition sufficient to put pressure on access charges. And litigation will undoubtedly continue across the country over the pricing of network elements in the state commissions and federal courts pursuant to Section 252, and in the Eighth Circuit as well if the Supreme Court upholds the Commission's jurisdiction over pricing.

Because network element based competition will not be a reality within the foreseeable future,¹⁰ the need for cost-based access charges is more urgent than ever. Grossly inflated access charges continue to impose millions of dollars of harm per day on consumers and the economy as a whole, as well as disrupt competition in the long distance market. *See AT&T CFA Comments* at 17-21 (giving examples). The ILECs' previous claims that the prescriptive backstop would require cost studies that would be burdensome to produce are especially baseless now, because the Commission has just chosen a forward-looking cost model in the

¹⁰ Widespread facilities-based competition is also unlikely to develop soon either. For example, AT&T's intention to acquire TCI should eventually result in a facilities-based alternative to the local exchange, but the necessary upgrades will take time. Moreover, TCI's network passes only about 30 percent of the country; AT&T will still need nondiscriminatory access to unbundled network elements in the remainder of the country.

universal service proceeding that can be used for these purposes as well. *See* Public Notice, Report No. 98-36 (October 22, 1998).

When the factual predicate of an agency's actions have been invalidated by subsequent events -- as the parties have shown overwhelmingly to be the case here in their comments on the CFA Petition -- the agency has an *obligation* to consider a new rulemaking to adjust its rules to the new realities. *American Horse Protection Ass'n v. Lyng*, 812 F.2d 1, 5 (D.C. Cir. 1987); *WWHT, Inc. v. FCC*, 656 F.2d 807, 819 (D.C. Cir. 1981); *see also Access Reform Order*, ¶ 267. The factual assumptions underlying the market-based approach previously proposed by the Commission have subsequently become invalid. As a result, there is little chance that widespread competition will emerge in the foreseeable future that is robust enough to put downward pressure on access charges. The Commission should therefore immediately grant CFA's Petition, and it should adopt mechanisms to reduce access charges to economic cost as soon as possible.

II. THE COMMISSION SHOULD NOT ADOPT THE ILECS' PRICING FLEXIBILITY PROPOSALS, NOR SHOULD IT GRANT AUTHORITY FOR MERGERS OR IN-REGION INTERLATA SERVICES WHILE ACCESS CHARGES REMAIN AT INFLATED LEVELS.

As the foregoing discussion demonstrates, the ILECs' access charges face no competitive pressure. Thus, because the ILECs fully retain their monopoly power in the access market, the proposals for various forms of pricing flexibility are singularly inappropriate. Indeed, not only should the Commission reject these attempts to expand the ILECs' monopoly power, the Commission also should call a halt to other attempts by the

ILECs to expand into other markets -- both product markets (through interLATA authority) and geographic markets (through mergers with other LECs) -- where they could use that monopoly power to the detriment of consumers.

A. Pricing Flexibility.

To begin with, Bell Atlantic's and Ameritech's proposals for pricing flexibility are entirely inappropriate and should be rejected. In the absence of competition, "pricing flexibility" of the sort proposed by Bell Atlantic and Ameritech would simply facilitate cross-subsidization, predatory pricing, and other anticompetitive schemes. For example, geographic deaveraging would permit an ILEC to keep rates at supracompetitive levels in lower density areas where competition has not emerged, and to use those revenues to subsidize predatory pricing in high density zones where there is some competitive entry. An ILEC could thereby drive efficient rivals from the market, and discourage others from entering at all.¹¹ Such a regulatory regime of "pricing flexibility" would be arbitrary and capricious, and at odds with the pro-competitive thrust of the Act.

Moreover, Bell Atlantic's and Ameritech's proposed triggers for increased flexibility are not reliable indicators of a true competitive presence that would be sufficient to constrain an ILEC's pricing behavior. For example, their proposed Phase 1 for increased flexibility in switched access pricing would require a showing merely of a state approved agreement or tariff for unbundled network elements, transport and termination, and resale. An approved

¹¹ See *Access Charge Reform, et al.*, CC Docket No. 96-262 et al., Comments of AT&T Corp., pp. 73-74 (filed January 29, 1997); see also Janusz Ordover and Robert Willig, "On Reforming the Regulation of Access Pricing," pp. 9-12 (attached hereto as Attachment A).

tariff or interconnection agreement, however, is not remotely the same thing as facing substantial competition that could constrain access charges. Indeed, this requirement is ludicrously minimal, and both Bell Atlantic and Ameritech assert (no doubt correctly) that they meet these Phase 1 criteria throughout their regions. Upon such a showing¹² -- despite the fact that there is virtually no competition anywhere in their regions -- both LECs would be permitted to deaverage rates geographically, thus facilitating cross-subsidization and predatory pricing.¹³

Because there is presently no significant competition in any of the ILECs' exchange access markets, consideration of pricing flexibility proposals is grossly premature. These latest proposals of Bell Atlantic and Ameritech would constitute effective deregulation of the exchange access market, at a time when the ILECs retain full monopoly power. In that respect, these proposals are even more inappropriate than the Commission's own proposals in the original Access Reform NPRM. *See AT&T Access Reform Comments* at 72-87 (explaining why the Commission should not adopt its proposals); *AT&T Access Reform Reply Comments*

¹² Bell Atlantic would also require the availability of interim number portability and that 100 unbundled loops be in service. These additional requirements are just as ludicrously minimal as the others, and would not constitute an indication of a significant competitive presence in the market.

¹³ Their proposals for Phase 2 triggers are equally unrelated to real competition. The LECs would receive even greater flexibility merely upon a showing that at least one CLEC has either collocated facilities and is purchasing network elements, or is serving customers with network elements and ported telephone numbers, in wire centers that represent 25 percent of the ILECs' total lines by class of service in the area for which flexibility is sought. Although satisfaction of these conditions would not remotely establish that there was a significant competitive presence in that service area, again both Bell Atlantic and Ameritech estimate that the majority of their regions would already qualify for Phase 2 pricing flexibility.

at 37-49 (same). The industry is still at the beginning of the process of opening the local and exchange access markets to competition, and the Commission should focus its energies on ensuring that those markets are opened, not on pricing flexibility proposals that are more properly considered at the end of that process several years hence.

B. InterLATA Authority.

But the Commission should not only reject the LECs' latest pricing flexibility proposals. It should remain vigilant to ensure that the harms of inflated access charges do not spread to other markets either through premature Section 271 authority or through mergers with other LECs.

For example, the persistence of above-cost access charges pose a substantial anticompetitive risk with respect to the long distance market, because they give the LECs the ability to execute price squeezes against their interexchange rivals. *See generally Town of Concord v. Boston Edison*, 915 F.2d 17 (1st Cir. 1990) (Breyer, J.) (explaining economics of price squeeze); *United States v. Aluminum Co.*, 148 F.2d 416 (2d Cir. 1945) (Hand, J.) (same). The Commission itself has recognized that an incumbent LEC's control of exchange and exchange access facilities gives it "the incentive and the ability to engage in a price squeeze," and has stated that price squeezes are unlikely only "so long as an incumbent LEC is required to provide unbundled network elements quickly, at economic cost, and in adequate quantities." *Access Reform Order*, ¶¶ 278, 280. As the parties have abundantly shown in these proceedings, however, unbundled network elements are not available on those terms, and as a result above-cost access charges continue to harm competition, as AT&T and others have

documented. See *AT&T CFA Comments* at 17-18, 20-21.¹⁴ The Commission is obligated to take these public interest harms into account when considering BOC applications for interLATA authority pursuant to Section 271(d)(3)(C). See *BellSouth Louisiana Order*, ¶ 362 ("we have broad discretion to identify and weigh all relevant factors in determining whether BOC entry into a particular in-region, interLATA market is consistent with the public interest"). As long as above-cost access charges persist, BOC interLATA entry directly threatens the public interest and should be denied.

C. LEC Mergers and Acquisitions.

The large LECs' proposed mergers with each other -- such as the proposed mergers of SBC with Ameritech and Bell Atlantic with GTE -- similarly threaten the public interest unless and until their access charges are reduced to cost. This is so for three reasons.

First, they would greatly increase the efficacy of price squeezes in the long distance market by giving the merged entities control over the origination and termination of a greater number of interexchange calls. Any increase in the percentage of calls that originate and terminate in a single region increases both the incentive and the ability to engage in a price squeeze. See *BellSouth Corp. v. FCC*, 144 F.3d 58, 67 (D.C. Cir. 1998) (recognizing that control over both ends of a call improves ability of an incumbent LEC to engage in

¹⁴ The Commission was mistaken in the *Access Reform Order* (at ¶ 281) in further suggesting that price squeezes are unlikely because such a strategy involves predation and requires driving interexchange carriers from the market. To the contrary, such a price squeeze does not involve predation, because the LEC would not be pricing its services below *its own* costs. Rather, above-cost access charges raise only its *rivals'* costs. Thus, a price squeeze would be profitable on its own terms, and would not require driving the interexchange carriers completely out of business.

anticompetitive conduct). The Commission itself recognized, in the context of the Bell Atlantic-NYNEX merger, that the LECs' ability to charge supracompetitive access charges would permit them to engage in price squeezes, but it nonetheless authorized that merger because of Bell Atlantic's commitments to offer network elements at cost-based rates. *Bell Atlantic NYNEX Merger Order*, ¶ 117. The refusal of all of these LECs, including even Bell Atlantic, to provide network elements on a nondiscriminatory basis and at cost-based rates should counsel in favor of outright denial of the current proposed mergers. *See Applications for Consent to the Transfer of Control of Licenses and Section 214 Authorizations from Ameritech Corporation, Transferor, to SBC Communications, Inc., Transferee*, CC Docket No. 98-141, Petition of AT&T Corp. to Deny Applications, pp. 31-34 (filed October 15, 1998).

Second, each merger between large LECs deprives consumers of potential competitors that could well help drive access charges in each affected market to cost. Bloated access charges obviously provide an incentive to other companies to enter the access market, to provide access services to compete with those provided by the large LEC serving that market and thereby drive access charges toward their underlying economic cost. *See, e.g., Access Reform Order*, ¶ 262. Yet experience confirms that entry into access markets is very difficult, particularly for companies without direct experience in providing access services. Thus, existing large LECs are undoubtedly in the best position to enter the access markets served by other large LECs. *See Bell Atlantic NYNEX Merger Order*, ¶¶ 106-08. They are, in short, the most logical potential competitors of each other in their own access markets. As long as access charges remain above cost, allowing one LEC to remove another LEC as a potential

competitor in the first LEC's access markets is obviously anticompetitive and contrary to the public interest.

Third, allowing such mergers in the face of bloated access charges adds indignity and insult to the injury such mergers already inflict on long-distance consumers. In every case, the principal reason that the acquiring LEC has the financial wherewithal to purchase the acquired LEC is that the acquiror is immensely profitable. However, as shown below in Part III, these enormous profits stem largely from the LECs' bloated access charges, which of course are paid by long-distance consumers. To allow a LEC to use the excess profits it receives from long-distance consumers to purchase a potential competitor is like forcing prisoners to build their own prison: the LEC is, in effect, using the profits it has (unfairly) obtained from long-distance consumers to protect and perhaps extend its access monopoly, so that it can continue to gouge those same consumers! Such a result is plainly contrary to the public interest, and simply should not be countenanced by the Commission.

III. THE COMMISSION SHOULD GRANT AT&T'S PETITION FOR PARTIAL RECONSIDERATION OF THE X-FACTOR ORDER AND SHOULD INCREASE THE X-FACTOR.

Noting that various petitions for reconsideration of the Commission's *X-Factor Order* had been filed by several parties, the Commission also requested the parties to "update their comments and refresh the record on the specific arguments raised in these petitions for reconsideration." Notice at 2. Reconsideration petitions directed to that *Order* had been filed by AT&T, Ad Hoc Telecommunications Users Committee ("Ad Hoc"), Cincinnati Bell Telephone Company ("Cincinnati"), and Citizens Utilities Company ("Citizens").

The AT&T Petition for Partial Reconsideration recognized that, although the Commission had made laudable progress in improving the local exchange carrier price cap system for regulating interstate access charges, further improvements were needed with respect to (1) measuring LEC interstate productivity on an interstate-only basis (rather than on a "total company" basis); (2) eliminating continuation of the unfounded low-end adjustment mechanism; and (3) requiring reinitialization of the newly determined X-Factor back to the LECs' 1995 tariff year, rather than going back only to the 1996 tariff year. Ad Hoc's petition similarly demonstrated that the Commission had substantially understated the LECs' X-Factor and the amount of their access rate reductions, primarily because the FCC failed to determine LEC productivity on an interstate-only basis. In contrast, the reconsideration petitions of Cincinnati and Citizens sought special treatment for themselves, even though they are "elective" price cap carriers. They urged that they be exempted from the Commission's newly determined X-Factor on the ground that the FCC's productivity offset for the LECs should not be applied to mid-size and small (rural) carriers who are given the option of voluntarily choosing price cap regulation.¹⁵

¹⁵ As AT&T pointed out in its Opposition to the Cincinnati and Citizens petitions, there is no substantive basis for excluding these LECs from being subject to the Commission's newly revised X-Factor. The Commission has previously considered and rejected these same arguments in its earlier price cap orders, and has adopted a policy of uniform X-Factor treatment for all price cap LECs. When these smaller LECs decided to elect price cap regulation for themselves, they were fully aware of that policy. Indeed, Cincinnati made its price cap election, pursuant to obtaining special permission from the FCC, one month *after* adoption of the *X-Factor Order*. See AT&T Opposition to Petitions for Reconsideration, filed Aug. 18, 1997. By way of updating the record, it should be noted that Cincinnati's interstate rate of return for the year 1997, as recently reported to the FCC, was 20.04 percent, even though Cincinnati had elected in 1997 to be subject to the FCC's

(continued...)

As shown below, the most recent data available support AT&T's showings in its reconsideration petition that the Commission has seriously underestimated the X-Factor to be used in the LECs' price cap formula and has understated the amount of LEC access rate reductions presently required.

A. Data From the FCC Staff's Analysis Further Confirm That the LECs' X-Factor Is Substantially Understated.

A most egregious error in the *X-Factor Order*, as pointed out in the reconsideration petitions of both AT&T and Ad Hoc, was the Commission's measurement of the LECs' interstate productivity on the basis of "total company" (combining local, intrastate and interstate) data rather than on the conceptually correct interstate-only basis. This infirmity alone results in a pronounced understatement of the LECs' X-Factor for their interstate access services. The data appended to the *X-Factor Order*, developed by the FCC Staff, demonstrate unequivocally that the rate of growth of LEC interstate output far exceeds the growth rate for LEC total company output. The vast discrepancies between the annual growth rates in output determined on the interstate-only and total company bases for the years 1986-95, as determined in the FCC Staff's analysis, are summarized below.

(...continued)

new X-Factor. See FCC Interstate Rate of Return Summary, May 1998 (Attachment D hereto).

**Schedule 1: Comparison of LEC Output Growth Rates on
Interstate-Only Basis and Total Company Basis
(1986-1995)**

Year	LEC Interstate Output Growth*	LEC Total Company (Local, Intrastate & Interstate) Output Growth**
1986	5.14%	3.45%
1987	7.78%	4.22%
1988	12.19%	3.98%
1989	6.05%	5.23%
1990	11.49%	5.98%
1991	9.83%	4.25%
1992	5.96%	3.73%
1993	11.27%	4.77%
1994	8.71%	5.08%
1995	9.59%	5.69%
Average 1986-95	8.80%	4.64%

* LEC interstate output growth rates for 1986-95 were derived from FCC Staff analysis set forth in *X-Factor Order*, Chart D4, 12 FCC Rcd. at 16787.

** LEC total company output growth rates for 1986-95 were derived from FCC Staff analysis set forth in *X-Factor Order*, Chart D5, 12 FCC Rcd. at 16787.

As the above schedule shows, according to the Staff's analysis, in each and every year from 1986 through 1995 LEC interstate output grew at a much higher rate than did LEC total company output. Moreover, the LECs' average interstate growth rate for the entire period (1986-95) was nearly double the average growth rate for the LECs' total company services (8.80% v. 4.64%).

The significant differences between these two sets of output growth rates provide compelling evidence that the LECs' interstate-only productivity is substantially higher than their total company productivity. The principle is firmly established that greater *output* growth has a direct relationship to greater *productivity* growth. The Commission itself recognized this principle when it initiated LEC price cap regulation, observing that "the more rapid growth in [LEC] interstate usage [vis-a-vis LEC local/intrastate usage] results in *higher apparent interstate productivity growth*," and that LEC productivity measured on a total company basis thus understates the greater LEC interstate productivity growth.¹⁶ Significantly, even the United States Telephone Association ("USTA"), speaking for the price cap LECs in the X-Factor proceeding, pointed out that "increased [demand] growth generates productivity gains. Thus, as more units of demand are carried on a LEC's network, *an increase in productivity* will be realized for all services...."¹⁷

Similarly, several major price cap LECs (NYNEX, Ameritech, BellSouth and Pacific Bell) have effectively conceded that the LECs' relatively higher interstate output growth rate would require an upward adjustment in the LECs' total factor productivity ("TFP") rate determined on a total company basis. As NYNEX observed, "intuitively the *higher output growth rates for interstate* indicate a potential need for an adjustment to the TFP result Basing the productivity offset only on a total company TFP and not accounting for the higher revenue generation (output growth) in interstate may result" in a misalignment between

¹⁶ *LEC 1990 Price Cap Order*, 5 FCC Rcd. 6786, 6798 (¶92) (1990) (emphasis added).

¹⁷ USTA Comments in CC Docket No. 94-1 at 45 (emphasis added).

interstate revenues and interstate costs.¹⁸ Indeed, Dr. Laurits Christensen, the primary consultant to the price cap LECs, endorsed this same principle in testifying before the California public utilities commission. As Dr. Christensen emphasized, there is a direct relationship between the demand (output) growth of the LECs and their total factor productivity growth, and consequently a change in the demand (output) growth for a LEC results in a proportional change in that LEC's TFP growth rate.¹⁹ *See also* Attachment B hereto for excerpts of expert testimony on behalf of LECs in state regulatory proceedings, conceding that LEC interstate-only productivity far exceeds LEC local, intrastate productivity.²⁰

¹⁸ NYNEX Comments in CC Docket No. 94-1 at 20 (emphasis added). In its Comments, NYNEX further pointed out the significance of the greater interstate output growth rate compared to the "slower" intrastate output growth: "[T]he interstate market [of the LECs] is based on output growth that reflects revenues primarily generated by MOU growth as compared to intrastate, which reflects a significant portion of output growth generated by a slower line growth." *Id.* *See also* Ameritech Comments in CC Docket No. 94-1 at 7 (Ameritech is "willing to consider modifications" to the USTA model (using total company output growth rates) if the "Commission...believe[s] it is appropriate to have an adjustment (e.g., interstate output growth factor)" to determine TFP.)

¹⁹ *See* Testimony of Dr. L.R. Christensen on behalf of Pacific Bell, No. 95-05-047, Calif. P. Utils. Comm'n (Sep. 8, 1995), App. 2 at 7-8, 10, 12, 14-16.

²⁰ *See, e.g.,* Testimony of Dr. William Taylor, N.C. Utils. Comm'n, Docket No. P-7, Sub 825, P-10, Sub 478 (Feb. 9, 1996), p.38 ("Price caps adopted in the interstate jurisdiction apply principally to interstate access service. It is reasonable to expect that productivity growth experienced historically in this market would be substantially greater than the overall rate of productivity growth by local exchange companies in supplying all services"); Testimony of Lewis J. Perl on behalf of BellSouth, N.C. Utils. Comm'n Dkt. No. P-55, Sub. 1013 (Jan. 26, 1996) ("There is every reason to expect that productivity experienced historically in the interstate market would be substantially greater than the overall rate of productivity growth experienced by local exchange companies in supplying all services"); Testimony of Fred Gerwing on behalf of BellSouth subsidiary, Ky. P.S. Comm'n, Case No. 94-121 (April 19, 1995), Tr. 257 ("there is no comparison between the efficiencies that can
(continued...)")

Following the methodology used by the FCC Staff in its analysis described in the *X-Factor Order*, AT&T recomputed the LEC X-Factor amounts (excluding the Consumer Productivity Dividend, or "CPD") by substituting LEC *interstate* output data for LEC *total company* output data formerly utilized by the FCC Staff. AT&T's analysis calculated TFP growth as the amount of growth in interstate output minus the growth in total inputs, using the FCC Staff data on interstate output quantities (subscriber lines, interstate access minutes, and special access lines) and corresponding revenue weights, but using FCC Staff input data as in its analysis. The input price differential calculated by the FCC Staff was then added to TFP growth to determine the interstate X-Factor (without the CPD). The following schedule shows the comparison between the X-Factors obtained by the FCC Staff on a total company basis and those determined by AT&T through the use of interstate output data.

(...continued)

be obtained by high volume, very efficient provision of interstate services versus running exchange lines 8, 10,000, 15,000 feet out to reach a residential customer. And there isn't any economist that I've seen that has said the provision of local exchange and -- combination of local exchange and intrastate or intraLATA toll services comes anywhere near that kind of efficiency [provided by interstate services].")

**Schedule 2: Comparison of X-Factor Calculations Based on Total Company Outputs
and X-Factor Calculations Based on Interstate-Only Outputs
(1986-1995)**

X-Factor Calculations (Excluding CPD)			
Averages	Total Company Basis*	Interstate-Only Basis	
		Recalculated for Interstate Outputs**	Further Adjusted For Access Reform and 50/50 Common Line Formula***
1986-95	5.2%	9.4%	8.1%
1987-95	5.9%	10.3%	8.8%
1988-95	6.0%	10.5%	9.1%
1989-95	6.1%	10.1%	8.8%
1990-95	5.8%	10.4%	9.3%
1991-95	5.2%	9.6%	8.6%

* Based on FCC Staff analysis in *X-Factor Order*, Chart D1, 12 FCC Rcd. at 16785.

** Derived by AT&T using LEC interstate output quantities and corresponding revenue weights instead of LEC total company outputs. See Attachment C, Table C-1.

*** Derived by AT&T using LEC interstate output quantities and corresponding revenue weights instead of LEC total company outputs, and further adjusted for impact of FCC's recent adoption of access reform changes and adoption of the "50-50" Common Line price cap formula. See Attachment C, Table C-2.

This schedule shows the pronounced differences between the productivity results using total company output data and those results recomputed to substitute the more relevant interstate output data. This recalculation alone increases the LECs' X-Factor in the amount of 4.0 to 4.6 percentage points. In order to show a more conservatively derived calculation, these X-Factor results were further modified to adjust for the impact of the Commission's

recent access reform changes and its adoption of the 50-50 Common Line price cap formula. These adjustments, along with the interstate output recalculation, would result in an increase in the LECs' X-Factor by 2.7 to 3.5 percentage points. It is evident, therefore, that the LECs' X-Factor for their interstate access services should, at the very least, be set at 9.2 to 10.0 percent, reflecting an increase of 2.7-3.5 percentage points over the 6.5 percent productivity offset determined in the *X-Factor Order*.

B. The Sharp Rise in the Interstate Rates of Return of the Price Cap LECs in 1996 and 1997 Effectively Demonstrates the Pronounced Increase in LEC Interstate Productivity.

One of the most revealing indicia of the interstate productivity performance of the price cap LECs in recent years can be found in the results shown in their interstate earnings reports to the Commission over the period commencing in 1991 during which the LECs were subject to price cap regulation. All price caps LECs have been required to file annual rate of return (FCC Form 492) reports at the Commission, with their preliminary reports due three months after the end of the calendar year and final reports due twelve months thereafter. Summaries of the interstate rate of return results, as derived from the individual LEC Form 492 reports filed with the Common Carrier Bureau, are compiled by the Industry Analysis Division.

In Attachment D we set forth the FCC's Interstate Rate of Return Summary for price cap companies during the years 1991 through 1997 (as of May 1, 1998). The schedule below summarizes the combined interstate earnings results over this period for all these price cap carriers.

**Schedule 3: Combined Interstate Rate of Return Results For Price Cap Carriers
(1991-1997)**

Year	Combined Interstate Rate of Return*
1991	11.78%
1992	12.42%
1993	13.12%
1994	13.58%
1995	14.02%
1996	15.15%
1997	15.64%

- * Weighted average rates of return for price cap carriers as shown in Attachment D. The rate of return figures for 1995-1997 reflect the results only for the price cap LECs, while the earlier year (1991-1994) results also include AT&T Communications, whose earnings did not materially affect the combined results for all the price cap carriers. All rate of return figures are based on price cap carriers' final reports, except for 1997, which was based on their initial and revised reports filed by May 1998.

As indicated above, over the years of LEC price cap regulation, the interstate earnings levels of the price cap LECs have steadily increased, reaching unprecedented heights of over 15 percent in 1996 and 1997. Notably, the price cap LECs, on average, had an interstate rate of return at their highest level -- 15.64 percent -- in 1997, the year in which they were required to make substantial reductions in their interstate access charges as a result of the mandated increase in their X-Factor and the reinitialization of their price cap indices back to the 1996 tariff year. The price cap LECs' most recent combined interstate rate of return for 1997 (15.64 percent) is some *439 basis points higher* than the Commission-prescribed LEC interstate rate

of return of 11.25 percent (which is already outdated and far too high under current financial conditions).

The significant increase in the price cap LECs' interstate earnings level in recent years is a strong demonstration of the substantial productivity improvements experienced by these LECs. Their combined rate of return in 1997, far above the Commission-prescribed return level, confirms that the 6.5 percent productivity offset determined by the Commission in its *X-Factor Order* substantially understates LEC productivity growth. Despite the Commission's recognition of the "past two years of understated productivity" and its concern that such understated productivity should not "become permanently ingrained in LEC PCIs" (*X-Factor Order*, 12 FCC Rcd. at 16714), the Commission required a reinitialization of access charges for only one year, and adopted as well an unduly low X-Factor. Even with the LEC access rate reductions required by the Commission in mid-1997, the price cap LECs' earnings rose substantially in that year. Had the newly formulated 6.5 percent X-Factor been truly reflective of the LECs' actual productivity growth, the price cap LECs' interstate earnings as a group most certainly would not have *increased* in 1997 but should have *declined*, moving much closer to the Commission-prescribed interstate return level.

C. Recent Data Further Confirm the Propriety of Requiring Reinitialization of LEC Access Charges Back to the 1995 Tariff Year.

As pointed out in AT&T's Petition for Partial Reconsideration (at 16-19), the Commission's *X-Factor Order* plainly endorsed principles requiring that the newly revised X-Factor should be applied to the LECs' price cap indices ("PCIs") for the 1995 tariff year as well as for the 1996 tariff year. The Commission observed that (1) during *both* years the then-

effective X-Factors "*understate*[]" LEC industry productivity growth," (2) the X-Factors adopted in 1995 were "expressly and repeatedly" recognized as "*interim*" numbers, (3) the price cap LECs were "reasonably" put "on notice" that these "interim" X-Factors could be further adjusted "beginning with the 1995 tariff year" and could be revised with the development of "more accurate" productivity measures at the conclusion of the X-Factor proceeding, (4) these "understated" X-Factors should not be "permanently ingrained" in the LEC price cap indices, and (5) the Commission had adopted a valid precedent (affirmed by the Court of Appeals for the D.C. Circuit) for applying its newly determined, increased X-Factor to adjust the LECs' PCIs during previous access tariff filing periods. *See X-Factor Order*, 12 FCC Rcd. at 16712-14 (emphasis added); *Bell Atlantic Telephone Cos. v. FCC*, 79 F.3d 1195, 1204-05 (D.C. Cir. 1996).

Nevertheless, despite its recognition of these clear-cut principles, the Commission allowed the price cap LECs to apply the revised 6.5 percent X-Factor only back to the 1996 tariff year, and thus permitted the *understated, interim* X-Factors in effect during the 1995 tariff year to be "permanently ingrained" in the LECs' price cap indices. The Commission followed this "more moderate approach" allegedly out of concern for the interests of the price cap LECs and to strike a "proper balance between stockholder and ratepayer interests." *Id.* at 16714.

Subsequent events have demonstrated, however, that the reinitialization approach embraced in the *X-Factor Order* is totally unfair to the consumers of interstate long-distance services and represents an unjustified windfall to the price cap LECs. As AT&T calculated in its reconsideration petition (Att. A), if the 6.5 percent X-Factor were also applied to the

LECs' PCIs for the 1995 tariff year, their interstate access rates would be reduced by another \$368 million. Moreover, these access reductions would flow directly to lower interstate long-distance rates. And if the X-Factor were set higher (which it should be), still greater benefits to long-distance users would be achieved.

On the other hand, the price cap LECs have profited enormously by the unjustifiably low productivity offset adopted in the Commission's *X-Factor Order* and by its failure to apply the newly revised X-Factor back to the 1995 tariff year. Even with the substantial access rate reductions ordered by the Commission in 1997, the price cap LECs as a group earned a 15.64 percent interstate rate of return in 1997. *See* Schedule 3, *supra*. They also earned at unprecedented levels in 1995 and 1996 (14.02 percent and 15.15 percent, respectively) when they had the benefit of applying X-Factors that, as the Commission itself recognized, were plainly "understated."

Based on the interstate earnings levels reported by the price cap LECs for 1997, AT&T has estimated that the price cap LECs could reduce their revenues by \$2.396 billion to bring their combined interstate rate of return in 1997 down to the Commission-prescribed level of 11.25 percent. *See* Attachment E. Even greater access rate reductions could be achieved if the Commission were to make a further reduction in the LECs' interstate return level consistent with current financial conditions. The price cap LECs thus have enormously large amounts of excess earnings to make further reductions in their interstate access charges amounting to \$368 million (through reinitialization back to 1995) and by much greater sums (through fully

justified increases in the LECs' X-Factor along with reinitialization).²¹ A substantial increase in the X-Factor, as described herein, is essential if the gap between the LECs' embedded access costs and their forward-looking economic access costs is to be narrowed.

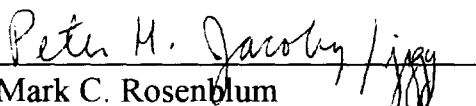
CONCLUSION

For the foregoing reasons, the Commission should (1) grant CFA's Petition for Rulemaking and adopt mechanisms to reduce access charges to cost as soon as possible, and (2) it should grant AT&T's petition for partial reconsideration in CC Docket No. 94-1.

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²¹ For example, if the Commission were to adopt reinitialization back to mid-1995, and set the price cap LECs' interstate X-Factor at 8.4 percent to 9.3 percent, effective with their 1998 tariff filings, the LECs' interstate access rates would be reduced by another \$2.0 to \$2.9 billion. See Letter from Customers for Access Rate Equity (CARE) to Chief, FCC Common Carrier Bureau, *ex parte* filing Aug. 11, 1998.

A

On Reforming the Regulation of Access Pricing

Janusz A. Ordovery and Robert D. Willig

May 11, 1998

In this paper, we offer comments on the public policy prescriptions for the reform of pricing of interstate access pricing offered by Richard Schmalensee and William Taylor in their paper, "The Need for Carrier Access Pricing Flexibility in Light of Recent Marketplace Developments: A Primer."¹ Our key conclusion is that the Schmalensee and Taylor ("ST") proposal for ILEC pricing flexibility in the provision of access does not follow from economic logic applied to the unusually distorted structure of today's interstate access prices. Further, the triggers that ST propose for reducing regulatory oversight and for streamlining regulation of access are inadequate. Hence, the ST policy prescriptions are unlikely to further the pro-competitive objectives of bringing access prices in line with cost, removing the substantial current inefficiencies in the provision of access, and facilitating efficient competition in the provision of local exchange services, including interstate access. Under the ST proposals, ILECs would be able to undermine the growth of competition in the provision of local access, stymie broad-based transition to cost-based pricing of access services mandated by the FCC's Access Reform Docket², further weaken the efficacy of the "market-based" approach to regulating local access, and, for the majority of telecommunications customers, delay the benefits from the pro-

¹ *Ex parte* letter from Mary McDermott, Vice President - Legal & Regulatory Affairs, United States Telephone Association, to Magalie Roman Salas, Secretary, Federal Communications Commission, transmitting the paper "The Need for Carrier Access Pricing Flexibility in Light of Recent Marketplace Developments: A Primer," by Richard Schmalensee and William Taylor, January 20, 1998 ("ST Paper").

² *See In the Matter of Access Charge Reform*, (inter alia), CC Docket No. 96-262, (*inter alia*), First Report and Order, released May 16, 1997, ¶¶ 258-284.

competitive public policy objectives embodied in the Telecommunications Act of 1996 and the Commission's *Local Interconnection Order* (CC Docket 96-98).

It is critical to begin the discussion of the reasons for our conclusions by pointing out the fundamental disjunction between the economic model of access articulated in the ST paper and the current reality of the market for interstate access services. The ST paper is a superficially attractive articulation of an argument made during the past twenty-five years or so of movement towards regulatory reform in myriad markets (including, at one time, long-distance telephone services: that regulation should get out of the way of adjustments in prices in order to permit market responses to competition and to changing demands. The usual context for this policy recommendation is a market, unlike that for local access, in which prices have been held by regulation in alignment with overall costs, in which new demand and competitive supply circumstances might warrant some readjustments in the relative levels of these prices, and in which the extant regulatory mechanisms impede timely and efficiency-enhancing rate rebalancing that the regulated firm wishes to implement.

It is ironic that while the ST paper retells this attractive economic story as if it applied to today's access services (as it has applied to many other markets over the years), the story is, in fact, up-side-down in the uniquely distorted market for access services: rather than having been aligned with costs either element-by-element or overall, access prices have greatly exceeded those necessary to recover the costs of the provision of access. Rather than requiring mere rebalancing to enhance economic efficiency, access prices generally must decrease significantly in order to enhance economic efficiency. Rather than merely impeding rapid adjustments in access prices, historical FCC regulation has generally maintained access prices substantially above pertinent

costs. And, rather than reforming extant regulation to reduce access prices to costs, the FCC recently embraced “market-based regulation,” whereby it relies on competition to drive access prices down. To complete the irony, today and for the immediate future, the only vigorous competition for the provision of interstate access and local exchange services is confined to a very narrow slice of the market associated with large business telecommunications customers.

Consequently, the conclusions advocated by the ST paper are just as up-side-down for the access services market as are their familiar, but here inapposite, assumptions. In the real access services market, the price movements needed to enhance economic efficiency require regulatory reforms that would tighten -- rather than loosen -- constraints on prices. In the real access services market, the reforms advocated by ST would essentially eliminate any ILEC’s incentives to lower the prices that apply to the vast majority of customers, rather than facilitate widespread improvements in pricing. And, in the real access services market, the ST proposals would undermine the anticipated growth in competition rather than promote the benefits of true competition through regulatory reforms. Thus, despite their superficial attraction, ST’s arguments and recommendations are up-side-down for today’s access service and should be shelved until market events or FCC policy changes make them conform to reality.

The fundamental flaw underlying the ST analysis and policy prescriptions is their unstated assumption that access rates are already aligned overall with the efficient level of costs of providing access³, and that provision of significant portions of access is already highly competitive, or will become so in the near future. Were such assumptions true, it might follow that access rates should be determined to the maximal extent possible by market forces, and that

³ ST even state that access is below cost in certain geographical areas (ST Paper at 13).

the Commission should concomitantly forbear from imposing the a heavy hand of regulation lest it distort market entry signals and impose substantial costs on incumbents and consumers. Market realities are, however, significantly different: for most telecommunications consumers (in particular, households and small businesses), access rates are substantially higher than forward-looking economic costs, and competition in the provision of access is limited to pockets of business customers in limited geographic areas. As a consequence, marketplace realities require a different regulatory posture than the one advocated by ST. In today's real access marketplace, the primary objective of regulatory policy should be to foster competition in the provision of access, along with local exchange services, and to promote across-the-board, major reductions in access rates to the level of economic costs.

We agree with ST that "competitive market forces are vastly superior to regulation in the determination of efficient levels of output, investment and price. Thus, where it can safely rely on market forces, the Commission should do so." (ST Paper at 4.) However, effectively competitive market forces in the provision of local access and exchange services are not widely available today, and access pricing flexibility on selective sales is not warranted in the current market environment.

1. Competitive conditions in the provision of access do not warrant the sort of deregulation recommended by Schmalensee and Taylor.

ST argue that, in many respects, the "access market" is highly competitive and ripe for significant deregulation. They base their opinion on two arguments: first, that the 1996 Act lifted all the legal barriers to entry into the provision of local exchange services (including access) and also significantly reduced economic barriers to entry by mandating that the ILECs sell unbundled

network elements ("UNEs") at cost-based prices and wholesale their retail services at a discount to competitors, and that certain figures demonstrate that UNE-based competition and resale of local exchange services are not only growing, but are already providing a potent constraint on the ability of the ILECs to exercise market power in the provision of access.⁴

As noted earlier, these arguments do not reflect marketplace realities. Although ST's figures may seem impressive, the fact remains that UNE-based competition is off to a very slow start; each RBOC and the other ILECs still have a virtual monopoly on the general provision of local exchange services -- including access -- and their monopolies are being eroded much more slowly than anticipated. This is due, in part, to the ILECs' delaying tactics, as the Commission (supported by the Department of Justice) repeatedly recognized in its denials of RBOCs' 271 applications for the provision of long distance services.⁵ Both the Commission and the Department of Justice concluded that there is currently insufficient competition in the provision of

⁴ Resale does not constrain access pricing because a reseller does not "own" the customer and is thus not entitled to access revenues generated by the customer. At most, resale can provide a reseller with a launch pad into future UNE- and facilities-based competition. These hoped-for forms of competition remain problematic.

⁵ See *In the Matter of Southwestern Bell Corporation Pursuant to Section 271 of the Communications Act of 1934, as amended, To Provide In-Region, InterLATA Services In Oklahoma*, CC Docket No. 97-121, Memorandum Opinion and Order, released June 26, 1997, and similar proceedings for Ameritech, Michigan, CC Docket No. 97-137, released August 19, 1997, BellSouth, South Carolina, CC Docket No. 97-208, released December 24, 1997 and BellSouth, Louisiana, CC Docket 97-231, released February 4, 1998.

local exchange services, and that mere possibility of future resale-based and UNE-based competition does not provide a constraint on market power adequate to warrant the removal of the long-distance restriction.

ST disagree, and argue that "[t]he main effect of the interconnection agreements with UNEs at cost-based rates is to reduce barriers to entry into the local exchange and exchange markets so that most ILEC customers become potential CLEC customers. [M]ost ILEC customers are vulnerable to competitors. Thus, these markets have been fully opened to competition ." (ST Paper at 26.) In our view, it is too early reliably to predict a speedy emergence of UNE-based entry, and even if such significant competition were to start, its success would not be assured.⁶ Consequently, we conclude that the currently speculative possibility of future competition in the provision of access does not support arguments for enhanced pricing flexibility for interstate access services.

ST are on more solid ground when they assert that, in many large cities, CAPs and other access providers have made serious inroads into the provision of special and dedicated access. The public policy question is whether this warrants a complete and immediate deregulation of special and dedicated access, as ST argue. (ST Paper at 33.) We think it does not.

First, ST do not and cannot show that all customers enjoy fully effective competition in the provision of special and dedicated access. When some customers are unprotected from the exercise of monopoly power over access, deregulation would harm them, while possibly

⁶ See Affidavits of William J. Baumol, Janusz A. Ordover, and Robert D. Willig filed with AT&T's Comments, January 29, 1997, and Reply Comments, February 14, 1997, in response to the December 24, 1996 Notice of Proposed Rulemaking in CC Docket 96-262, *Access Charge Reform*.

benefitting others.⁷ Hence, it does not follow that public policy should ignore the possible harms to unprotected customers simply because at some future date, competition may more fully constrain the ILECs over a broader set of customers in the provision of these types of access.

Second, ST do not consider the fact that ILECs are free permanently to lower their prices to all customers who demand special and dedicated access. ST focus instead on the alleged competitive harms from regulation-imposed rigidity of prices that the ILECs can charge to individual customers while charging higher price to all others. If competition were pervasive and ILEC prices too high for competitive success, then the ILEC should be able profitably to lower its prices to all consumers.

Third, while there are many circumstances in which customer-by-customer pricing flexibility facilitates competition and customer welfare, the access market is not one of them. Since the access market is characterized by seriously distorted elevations of prices over costs, the main objective of regulation ought to be to reduce prices to all customers rather than to a small subset of individual customers.

2. Denying ILECs unrestrained pricing flexibility is pro-competition, not pro-competitor.

⁷ See B. Douglas Bernheim, "An Analysis of the FCC's Proposal for Streamlined Regulation of LEC Access Services," filed as Appendix A to AT&T's submission in CC Docket 94-1, December 5, 1995, for an extensive analysis of the balancing of competitive costs and benefits.

ST argue that "undue constraints on ILEC's pricing lead to losses in economic efficiency because incorrect market signals are provided to participants. [I]ncorrect market signals can lead to inefficient investments in the telecommunications network: e.g., when a customer decides to purchase from a competitor whose incremental cost is higher than the ILEC's but who, nevertheless, can charge a lower price because the ILEC is prevented from responding by tariff constraints." (ST Paper at 5.) We agree with ST that undue tariff rigidity can lead to distorted investments for the purpose of by-pass and induce wrong customer choices. Nonetheless, unrestricted ILEC pricing flexibility in access markets can be used to thwart entry and stymie the growth of competition in the provision of local access and other local exchange services, while it denying the broad access market the benefits of across-the-board reductions in prices towards costs.

Under the FCC's "market-based" approach to regulation of access, the ILECs are permitted to maintain access prices substantially above costs, but an entrant that wins a local exchange customer need not pay the ILEC excessively for the supply of access to the customer⁸. With this approach, there are two alternatives for access prices generally to be reduced to costs. The first alternative is for competition against ILECs' provision of local exchange and access to develop broadly, so that the preponderance of customers can switch away from the ILECs and thereby avoid the excessive access charges. The second alternative is for the ILECs to lower their access prices substantially across the board in order to stem the flow of lost local customers. Plausibly, alternative routes to generally lower access prices will eventuate because competitive alternatives to ILECs' provision of local exchange and access services may not emerge on a broad

⁸ This does not apply to customers of resellers of local exchange services.

scale. Accordingly, only tighter regulation of access prices will decrease them closer to costs, in effect forcing the FCC to reduce its reliance on the “market-based” approach to promoting lower access prices.

If, however, the FCC continues to rely on its “market-based” approach, adopting ST’s proposed pricing flexibility would seriously undermine the two alternatives for the general level of access prices to be reduced down to costs. First, under the ST rules, the ILECs would be motivated to employ selective, targeted deep discounts on access services subject to active competitive threat, thereby discouraging possible competitors from investing the sunk costs needed to make the attempt. Thus, even narrowly focused competition would be thwarted, and any hopes that such competition would widen would be dashed. Second, without any prospects for broad-based competition to develop, the ILECs would have no incentive to offer broad-based reductions in access prices. The only customers who would be offered substantial cuts in access prices would be those few that happened to be the beneficiaries of the narrow episodes of competition that survived the deterrent impacts of ILEC pricing flexibility.

Of course, new entry is not a goal in itself. Inefficient entry wastes social resources and may lead to higher future costs. However, because the FCC has chosen the “market-based” approach to regulating access rates, it is essential for the success of this policy that competition in markets for all types of access services for all types of consumers take hold and then develop quickly and fully in a manner that benefits overall consumer welfare.

ST wrongly dismiss this argument by equating it with "infant industry" rationales for protection. However, this is not the case in the current, unusual circumstances that exist in the access market. There are significant positive externalities from competition in the provision of

special and dedicated access to competition in the provision of switched access. The ILECs still hold a virtual monopoly on switched access. This monopoly may be eroded, in part, by vendors that extend their special, dedicated access services to switched access. Consequently, sound public policy reasons exist to provide incentives for firms to enter into the provision of special and dedicated access, and increase their market share there as a springboard for entry into more entrenched areas of ILECs' access monopoly, such as switched access. Contrary to ST's arguments, it is irrelevant that the potential entrants are "well financed" companies such as AT&T or MCI; even well-financed companies are unlikely to enter a market and provide a service if they do not expect to earn a normal rate of return on their investments. The ILECs' market position in the provision of access services is difficult to dislodge because of their incumbency advantages, because of sunk costs and other risks associated with entry into the provision of access, and because of the difficulties in obtaining UNEs and OSS on cost-based terms. In fact, as ST show, with the sole exception of special and dedicated access, the entrants have not been able to divert any significant share from the ILECs to any significant extent. Moreover, the widely touted investment projects in local exchange infrastructure have yet to be implemented. Hence, currently, given the FCC's "market-based" approach to access price regulation, the use of special and dedicated access services as a possible springboard for further growth of competition is a socially desirable means of whittling away at the ILECs' market dominance in the provision of access.

Echoing familiar arguments against "asymmetric regulation," ST complain that ILECs, unlike the CAPs and other vendors, are denied pricing flexibility, thereby placing them at a competitive disadvantage. ST ignore the fact that ILECs have many competitive advantages in

the provision of access and other local exchange services. There is no evidence, and ST adduce none, that any competitive losses by ILECs in the provision of special and dedicated access have created financial difficulties that make them less well-positioned for future competition in the provision of various telecommunications services. To the contrary, the available evidence indicates that the margins on access services are very high, approximately \$8 - 9 billion per year nationwide⁹, and that there is no justification for an express subsidy to large LECs before competition has developed in their local exchange marketplace.¹⁰ Hence, the ILECs' revenue losses do not jeopardize their ability to meet their current regulatory obligations. Finally, and most important, ILECs are free to respond to price offerings made by their rivals. In particular, ILECs can readily meet competitive offerings with across-the-board price cuts, which would benefit telecommunications consumers and be consistent with the FCC's policy goals expressed in its *Access NPRM*. ST and cannot argue that such broad-based cuts would lower prices below the forward-looking economic costs of providing access. Because access is priced significantly above cost, substantial leeway for price reductions still exists. In the end, the ST argument comes down to a simple proposition: "targeted price cuts to selected customers are more profitable than broad-based price reductions." We agree, but find that this does not create a public interest rationale for greatly easing regulatory constraints on the ILECs. In sum, while the ILECs are regulated differently from the CAPs and CLECs, this fact is not likely to engender the kind of social losses and inefficiencies that ST cite from other industries, due to the dramatically

⁹ See letter from Mark Rosenblum, Vice President, Law and Public Policy, AT&T, to William E. Kennard, Chairman, Federal Communications Commission, March 5, 1998, at page 6.

¹⁰ See *En Banc Presentation of Joel Lubin*, Docket 96-45, March 6, 1998.

different circumstances unique to this industry today.

3. The ST triggers for pricing flexibility are insufficient for streamlined regulation.

We agree that "clear and objective triggers that are easily measured and verified can reduce contention and allow regulators to expedite proceedings to provide additional pricing flexibility" (ST Paper at 32.) Our concern is that ST's proposed triggers are both insufficiently precise and too lax. ST's arguments seem to rely heavily on their belief in the absence of legal entry barriers and the power of potential competition as an effective constraint on the ILECs' ability to exercise market power. Given the present state of the marketplace, we lack confidence in the constraining power of potential competition and the adequacy of triggers that rely on potential competition to streamline regulation. In the local telecommunications markets of today, substantially more stringent triggers must be adopted if they are to serve as the sole regulatory tool. Although market-share based triggers may be satisfied on a geographically disaggregated basis (as in downtown areas of major cities), other regulatory tools and constraints would have to accompany these triggers in order to accomplish the Commission's stated goals of lowering access prices to all areas. If price deregulation occurred only within a narrow geographical area because metrics of competition were observed only there, then narrowly targeted price decreases might displace broader decreases that would otherwise have been offered. The end of price uniformity would also require that an accompanying constraint that would offer protection against the LECs' ability to leverage its monopoly power from other access components and unbundled network elements¹¹ However, even this might not be

¹¹ See, e.g., the family of price caps (or, more accurately, revenue caps) for all the LECs'

sufficient to achieve the Commission's goal of lowering access prices to all consumers.

Regulatory relief for the pricing of special access and dedicated transport under the FCC's regime of "market-based" access regulation would still not promote -- and, indeed, would likely undermine -- needed progress towards generally lower prices for access components or services of any sort. Adoption of ST's proposals would, therefore, not represent good public policy at this time.

In sum, based on both the facts and economic analysis, we disagree with ST's claim that there is currently a public interest rationale to grant the ILECs added pricing flexibility in the provision of access services.

access components and the services that use these access components offered in the Bernheim Affidavit referenced in fn 6, *supra*.



B



The following excerpts were taken from State Public Service Commission's incentive regulation proceedings. The information highlighted below reflects examples of LEC testimony in intrastate jurisdictions seeking state regulatory commissions to consider intrastate only results and conditions.

State/Company

Testimony of.....

Kentucky/South Central Bell

Fred Gerwing - April 19, 1995

Excerpts from testimony given at the PSC... Case No. 94-121

QUESTION .. " A question about your productivity offset. Since the FCC has set a higher productivity factor than you proposed here for the interstate operations, shouldn't this commission adopt a higher productivity offset for the intrastate?

Mr. Gerwing's response.."there is no comparison between the efficiencies that can be obtained by high volume, very efficient provision of interstate services versus running exchange lines, 8, 10,000, 15,000 feet out to reach a residential customer. And there isn't any economist that I've seen that has said the provision of local exchange and -- combination of local exchange and intrastate or intraLATA toll services comes anywhere near that kind of efficiency."

State/Company

Testimony of.....

North Carolina/BellSouth

Lewis J. Perl - January 26, 1996

Excerpts from testimony given at the PSC.. Docket No. P-55, Sub 1013.

QUESTION .. "Why do you believe that the Price Cap Formula adopted in the Interstate jurisdiction does not provide any guide to the appropriate Price Cap Formula to be applied here?"

Mr. Perl's response.."Price caps adopted in the interstate jurisdiction apply principally to interstate access service. There is every reason to expect that productivity experienced historically in the interstate market would be substantially greater than the overall rate of productivity growth experienced by local exchange companies in supplying all services. First, most of the productivity growth experienced in the telecommunications industry is related to reductions in switching costs and to the savings in transmission costs which occur as a result of using electronics to expand the carrying capacity of transmission facilities. In contrast, productivity growth in supplying loop services has historically been markedly slower. Thus, even if productivity had grown at 5.3 percent per year for interstate access services, this would not imply that a similar growth rate was appropriate for other components of telephone service."

State/Company

Testimony of....

North Carolina/Carolina Telephone and Telegraph Company
&
Central Telephone Company

Dr. William Taylor -February 9, 1996

Excerpts from testimony given at the PSC. Docket No. P-7, Sub 825, P-10, Sub 479.

QUESTION .. Does the stipulated plan give customers a reasonable prospect of receiving the anticipated benefits of productivity improvements?

Dr. Taylor's response...."Opportunities to increase productivity growth in the interstate jurisdiction must be greater than in the state jurisdictions. Switching and interoffice transmission equipment heavily influence productivity growth in the interstate jurisdiction. Prices of such equipment have fallen rapidly, and its capabilities have increased rapidly. In the state jurisdiction, however, loop costs dominate. I understand that loop cable prices and their installation costs have been increasing modestly rather than decreasing."

QUESTION .. Why do you believe that the Price Cap formula adopted in the Interstate jurisdiction does not provide any guide to the appropriate Price Cap formula to be applied here?

Dr. Taylor's response..."Price caps adopted in the interstate jurisdiction apply principally to interstate access service. It is reasonable to expect that productivity growth experienced historically in this market would be substantially greater than the overall rate of productivity growth experienced by local exchange companies in supplying all services."

"Much of the productivity growth experienced in the telecommunications industry is related to reductions in switching costs and to the savings in transmission costs which occur as a result of using electronics to expand the carrying capacity of transmission facilities. In contrast, productivity growth in supplying loop services has historically been markedly slower. Thus, even if the productivity differential is 5.3 percent per year for interstate access services, this would not imply that a similar productivity differential was appropriate for other components of telephone service. To the contrary, the productivity differential for services in the state jurisdiction must necessarily be less than 5.3 percent per year. Dr. Norsworthy himself argues that the productivity growth for access services must be greater than it is for other services. "

State/Company

Testimony of.....

California / Pacific Bell

Dr. Lauritis R. Christensen September 8, 1995

Excerpts from testimony given at the PUC...Investigation No.95-05-047

*Appendix 2 - The Relationship between Output
Growth and Total Factor Productivity Growth for Telephone Local Exchange Carriers*

Dr. Christensen's statement. "In addition to the rate of growth in total output, the sources of that output growth can be an important determinant of TFP growth when economies of density are present. In industries with economies of density, prices are typically set above marginal cost for the various services provided by the firm, in order to generate revenue sufficient to cover total cost. When the markup of price relative to marginal cost varies over the services provided, growth in high markup services contributes more to TFP growth than growth in low markup services. Conversely, reductions in the growth of high markup services lead to disproportionate reductions in TFP growth. Much of the increasing competition for Local Exchange Carriers is focused in markets with high price-to-marginal -cost ratios. If competition effectively leads to lower LEC output growth in these high margin markets, LEC TFP growth will also be lower."

ATTACHMENT C

**Statement of Dr. John Randolph Norsworthy
Regarding Updated Data in Response to the
Commission's Public Notice of October 5, 1998**

I am Professor of Economics and Finance in the Lally School of Management and Technology at Rensselaer Polytechnic Institute, where I teach, as well as conduct and direct research on, among other things, econometrics, regulatory economics, finance and telecommunications policy.¹

I have prepared or directed the preparation of, and reviewed carefully, the results of the revised X-Factor calculations for the local exchange carriers (LECs), as reported in the "Comments of AT&T Corp. to Update and Refresh the Record," dated October 26, 1998, in the Matters of Access Charge Reform (CC Docket No. 96-262), Price Cap Performance Review for Local Exchange Carriers (CC Docket No. 94-1), and the CFA Petition for

¹ Dr. Norsworthy was also director of the Laboratory for Productivity and Technology at RPI's Center for Science and Technology Policy. He served for a number of years in several positions in the Federal government, including nine years as Chief of the Productivity Research Division of the U.S. Bureau of Labor Statistics. A more complete statement of Dr. Norsworthy's background and scholarly writings on total factor productivity (TFP) and related matters is set forth in Appendix C to AT&T's Comments in CC Docket No. 94-1. Dr. Norsworthy has participated extensively throughout the Commission's X-Factor rulemaking proceeding (CC Docket No. 94-1) by submitting detailed written statements, consulting with AT&T, and directing the formulation and implementation of AT&T's Performance Based Model to measure the LECs' X-Factor.

Rulemaking (RM 9210). I also prepared or directed the preparation of, and reviewed carefully, the underlying calculations and data on which they are based. This information has been prepared in general conformance with the methods used in the FCC Staff's analysis described in the Commission's X-Factor Order.

In order to determine what the results of the FCC Staff's X-Factor analysis would be if we used measures of the LECs' interstate output growth instead of measures of their "total company" growth in the years 1986-95, we made the below-described recomputations of the FCC Staff's analysis appearing at Chart D1 of the X-Factor Order (12 FCC Rcd. at 16785). In Table C-1, which follows, we recomputed Chart D1 to substitute LEC interstate output growth measures for total company output growth measures. In all other respects, we used the same measures as those contained in the Staff's analysis, including its computation of the input price differential. It should be noted that Table C-1 below follows the same format of the Staff's Chart D1 -- that is, the figures in Columns A, B, C and E of Table C-1 are exactly the same as in the Staff's Chart D1. The only changes are in Column D of our table (to reflect interstate TFP), which also have consequential effects on Columns F and G.

Table C-1 constitutes a much more reliable estimate of the price cap LECs' interstate X-Factors (before addition of the Consumer Productivity Dividend) for the years 1986-1995 applicable to their interstate access services. That table shows that the inclusion of the LECs'

interstate output growth rates, in place of their total company output growth rates, results in substantial increases in the LEC X-Factor estimates. A comparison of the X-Factors determined in Table C-1 with those displayed in the Staff's Chart D1 shows that, on average, the revised LEC interstate X-Factors are 4.0 to 4.6 percentage points higher than those determined on a total company basis.

In Table C-2, we also adjusted the revised LEC X-Factor calculations resulting from the substitution of LEC interstate output growth measures for LEC total company output growth measures. These further adjustments represent the estimated effects of Commission actions regarding Access Reform and the 50/50 Common Line formula.² As in Table C-1, we incorporated the data shown in Columns A-C and E of the FCC Staff's analysis in Chart D1, but we revised the Column D figures to reflect LEC interstate output growth and account for the effects of the FCC's Access Reform changes. The revised X-Factors shown in Table C-2 still represent substantial increases over the LEC total company X-Factor estimates determined in the X-Factor Order, amounting to increases of 2.7 to 3.5 percentage points.

² For a description of the basis for making these further adjustments reflecting the effects of the FCC's new Access Reform plan and the FCC's 50/50 Common Line formula, see Attachment A (pp. 5-6) of Letter from Customers for Access Rate Equity ("CARE") Coalition to Chief, Common Carrier Bureau, dated August 11, 1998, filed ex parte.

**Table C-1: Recomputation of FCC Staff X-Factor Analysis at Chart D1 of X-Factor Order
(Components of FCC LEC Price Cap X-Factor [Excluding CPD])
To Include LEC Interstate Output Growth Instead of Total Company Output Growth**

Year	Input Price Growth Rates			Interstate TFP Growth Calculation			
	Total RBOCs A	U.S. Nonfarm Business Sector B	Differential C=B-A	Interstate TFP D	U.S. Nonfarm Business Sector E	Differential F=D-E	LEC Interstate Price/Productivity Differential G=C+F
1986	4.94%	2.81%	-2.13%	4.27%	0.92%	3.35%	1.2%
1987	0.56%	2.53%	1.97%	6.53%	-0.02%	6.55%	8.5%
1988	-1.58%	3.73%	5.31%	8.33%	0.46%	7.87%	13.2%
1989	-2.36%	3.04%	5.40%	2.75%	-0.55%	3.30%	8.7%
1990	1.88%	3.31%	1.43%	12.36%	-0.47%	12.83%	14.3%
1991	-0.85%	2.06%	2.91%	7.61%	-0.89%	8.50%	11.4%
1992	2.67%	2.88%	0.21%	6.54%	1.10%	5.44%	5.6%
1993	2.27%	3.72%	1.44%	10.30%	0.55%	9.75%	11.2%
1994	-0.19%	3.50%	3.69%	5.84%	0.50%	5.34%	9.0%
1995*	1.31%	3.09%	1.78%	9.09%	0.16%	8.93%	10.7%
Averages							
[1986-95]	0.87%	3.07%	2.20%	7.36%	0.17%	7.19%	9.39%
[1987-95]	0.41%	3.10%	2.68%	7.71%	0.09%	7.61%	10.30%
[1988-95]	0.39%	3.17%	2.77%	7.85%	0.11%	7.75%	10.52%
[1989-95]	0.68%	3.09%	2.41%	7.79%	0.06%	7.73%	10.14%
[1990-95]	1.18%	3.09%	1.91%	8.62%	0.16%	8.47%	10.38%
[1991-95]	1.04%	3.05%	2.01%	7.88%	0.28%	7.59%	9.60%

*Columns B and E for 1995 are estimated, based on the average of 1990-1994.

**Table C-2: Recomputation of FCC Staff X-Factor Analysis at Chart D1
(Components of FCC LEC Price Cap X-Factor [Excluding CPD])
With Substitution of LEC Interstate Output Growth for Total Company Output Growth
And Adjustments for Changes in Access Reform and 50-50 Common Line Formula**

Year	Input Price Growth Rates			Adjusted Interstate TFP Growth Rate			LEC Interstate Price/Productivity Differential G=C+F
	Total RBOCs A	U.S. Nonfarm Business Sector B	Differential C=B-A	Adjusted Interstate TFP** D	U.S. Nonfarm Business Sector E	Differential F=D-E	
1986	4.94%	2.81%	-2.13%	5.29%	0.92%	4.37%	2.2%
1987	0.56%	2.53%	1.97%	4.27%	-0.02%	4.29%	6.3%
1988	-1.58%	3.73%	5.31%	5.90%	0.46%	5.44%	10.8%
1989	-2.36%	3.04%	5.40%	0.39%	-0.55%	0.94%	6.3%
1990	1.88%	3.31%	1.43%	10.61%	-0.47%	11.08%	12.5%
1991	-0.85%	2.06%	2.91%	6.95%	-0.89%	7.85%	10.8%
1992	2.67%	2.88%	0.21%	5.49%	1.10%	4.39%	4.6%
1993	2.27%	3.72%	1.44%	9.64%	0.55%	9.09%	10.5%
1994	-0.19%	3.50%	3.69%	4.88%	0.50%	4.38%	8.1%
1995*	1.31%	3.09%	1.78%	7.46%	0.16%	7.30%	9.1%
Averages							
[1986-95]	0.87%	3.07%	2.20%	6.09%	0.17%	5.91%	8.11%
[1987-95]	0.41%	3.10%	2.68%	6.18%	0.09%	6.08%	8.77%
[1988-95]	0.39%	3.17%	2.77%	6.42%	0.11%	6.31%	9.09%
[1989-95]	0.68%	3.09%	2.41%	6.49%	0.06%	6.43%	8.84%
[1990-95]	1.18%	3.09%	1.91%	7.51%	0.16%	7.35%	9.28%
[1991-95]	1.04%	3.05%	2.01%	6.88%	0.28%	6.60%	8.61%

* Columns B and E for 1995 are estimated, based on the average of 1990-1994.

** Column D amounts are further adjusted for effects of changes in Access Reform and 50/50 Common Line formula.

D

**INTERSTATE RATE OF RETURN SUMMARY
YEARS 1991 THROUGH 1997
PRICE CAP COMPANIES**

FINAL REPORTS FOR 1991, 1992, 1993, 1994, 1995, 1996 AND INITIAL REPORT FOR 1997

AS OF MAY 1, 1998.

REPORTING ENTITY	1997	1996	1995	1994	1993	1992	1991
AT&T COMMUNICATIONS 1/				13.26 %	13.49 %	12.77 %	13.41 %
1 AMERITECH OPERATING COMPANIES	18.22 %	18.27 %	16.78 %	13.39	14.80	12.79	13.00
BELL ATLANTIC COMPANIES							
2 BELL ATLANTIC 2/	14.77	11.24	13.74	14.00	14.01	12.50	12.83
3 BELL ATLANTIC (NYNEX) 3/	13.73	15.23	12.12	11.79	12.55	12.50	
NEW ENGLAND TELEPHONE AND TELEGRAPH CO.							8.54
NEW YORK TELEPHONE							9.82
4 BELLSOUTH TELEPHONE COMPANIES	17.90	16.40	15.78	15.92	13.68	12.80	12.62
SBC COMMUNICATIONS, INC.							
5 SOUTHWESTERN BELL TELEPHONE COMPANY 4/	10.32	11.63	13.38	13.01	12.91	11.80	10.75
6 NEVADA BELL	19.46	17.75	17.31	17.92	17.44	14.51	12.98
7 PACIFIC BELL	11.90	17.68	15.76	14.93	12.89	12.68	11.85
8 U.S. WEST COMMUNICATIONS, INC.	15.39	13.64	12.00	12.40	13.62	12.41	12.40
GTE 5/ 6/							
9 GTE CALIFORNIA, INC. (CALIFORNIA CONTEL) 7/	19.09	17.63	16.03	12.19			
10 GTE CALIFORNIA, INC. (ARIZONA CONTEL) 7/	14.10	4.15	2.95	6.24			
11 GTE CALIFORNIA, INC. (NEVADA CONTEL) 7/	30.98	25.50	19.15	27.39	15.43	8.51	11.87
CONTEL OF CALIFORNIA, INC. 7/							
12 GTE SOUTH INC. (KENTUCKY ONLY - COKY) 8/	6.94	4.49	4.79	5.56			
13 GTE SOUTH INC. (N. CAROLINA ONLY - CONC) 8/	16.44	11.98	14.16	10.75			
14 GTE SOUTH INC. (S. CAROLINA ONLY - COSC) 8/	24.97	17.40	12.32	9.77			
15 GTE SOUTH INC. (VIRGINIA ONLY - COVA) 8/	33.80	30.90	23.18	23.45			
16 GTE SYSTEMS OF THE SOUTH (COAL ONLY) 8/	15.23	9.69	11.88	12.58			
GSTC - SOUTH (EAST SOUTH CONTEL) 8/					15.09	9.90	9.67
17 GTE NORTH INC. (ILLINOIS CONTEL) 9/	40.63	36.34	24.21	26.48			
18 GTE NORTH INC. (INDIANA CONTEL) 9/	29.21	29.02	23.27	22.44			
19 GTE MIDWEST INC. (CONTEL IOWA COIA - COSI) 9/	33.49	30.39	22.39	18.31			
20 GTE MIDWEST INC. (CONTEL MISSOURI COMO - COCM - COEM) 9/	11.92	11.97	9.57	10.79			
21 GTE ARKANSAS, INC. (COAR - COSA) 9/	17.48	19.13	18.24	17.44			
22 CONTEL OF MINNESOTA - COMN 9/	33.54	32.38	23.81	22.12			
GSTC - CENTRAL (CENTRAL CONTEL) 9/					16.28	10.24	11.22
23 GTE NORTH INC. (COPA - COQS) 10/	36.92	40.55	36.38	32.60	22.33	17.11	12.79
24 GTE ALASKA, INC. (ALASKA GTE)	29.58	19.44	22.48	24.78	16.13	14.84	14.69
25 GTE CALIFORNIA INC. (CALIFORNIA GTE)	17.87	13.72	6.95	9.08	7.05	10.73	12.45
26 GTE FLORIDA INC. (FLORIDA GTE)	19.19	15.17	8.56	7.36	7.36	9.52	12.64
27 GTE HAWAIIAN TELEPHONE CO. INC. (HAWAII GTE)	10.68	9.42	7.87	8.15	9.18	8.98	11.75
28 GTE ILLINOIS - ALLTEL ILLINOIS (GTIL - GLIL)	22.83	18.36	14.69	17.12	13.77	12.60	12.65
29 GTE INDIANA - ALLTEL INDIANA (GTIN - GLIN)	24.25	26.23	18.80	18.21	14.50	14.17	14.16
30 GTE MICHIGAN - ALLTEL MICHIGAN (GTMI - GLMI)	16.80	14.85	11.45	11.10	9.82	14.21	12.89
31 GTE MIDWEST INC. (IOWA ONLY - GTIA) 11/	24.56	22.68	16.49	19.05			
32 CONTEL OF MINNESOTA - GTMN 11/	6.03	(13.13)	(10.88)	(0.04)			
GTE NORTH INC. (TOTAL IA-MN GTE) 11/					13.16	13.69	9.97
33 GTE MIDWEST INC. (MISSOURI GTE)	16.63	19.84	17.18	18.20	13.48	13.99	13.30
34 GTE MIDWEST INC. (NEBRASKA GTE)	27.12	28.86	21.67	20.35	13.84	12.74	8.70
35 GTE NORTH INC. (OHIO GTE)	25.41	21.20	17.21	16.90	12.66	12.91	10.55
36 GTE NORTH INC. (PENNSYLVANIA GTE)	25.24	18.91	14.02	14.81	11.72	12.42	12.82
37 GTE NORTH INC. (WISCONSIN GTE)	18.36	17.99	13.96	13.65	13.85	13.00	10.43
38 GTE NORTHWEST INC. (OREGON ONLY - GTOR) 12/ 14/	28.29	23.50	18.89	16.20			
39 GTE NORTHWEST INC. (WASHINGTON ONLY - GTWA) 12/	24.43	21.60	15.87	13.67			
40 WEST COAST TELEPHONE CO. OF CALIFORNIA - GNCA 12/	(28.51)	(24.03)	(16.99)	(15.37)			
GTE NORTHWEST INC. (TOTAL OR-WA-NWCA GTE) 12/					9.90	10.82	11.83
41 GTE NORTHWEST INC. (IDAHO ONLY - GTID) 13/	30.91	23.94	20.78	19.60			
GTE NORTHWEST INC. (MONTANA ONLY - GTMT) 13/				15.37			
GTE NORTHWEST INC. (TOTAL ID - MT GTE) 13/					16.00	17.34	14.53
42 GTE NORTHWEST INC. (CONTEL WASHINGTON ONLY - COWA) 14/	31.71	29.43	22.24	18.07			
GTE NORTHWEST INC. (CONTEL OREGON - COOR) 12/ 14/				9.18			
GTE SYSTEMS OF NORTHWEST (NORTHWEST CONTEL) 14/					18.09	10.26	8.96
43 GTE SOUTH INC. (ALABAMA ONLY - GTAL) 15/	23.54	17.68	11.39	11.83			
44 GTE SOUTH INC. (KENTUCKY ONLY - GTKY) 15/	21.29	18.46	13.89	10.96			
45 GTE SOUTH INC. (NORTH CAROLINA ONLY - GTNC) 15/	24.56	23.83	14.99	19.02			
46 GTE SOUTH INC. (SOUTH CAROLINA ONLY - GTSC) 15/	24.06	25.70	18.93	17.60			
47 GTE SOUTH INC. (VIRGINIA ONLY - GTVA) 15/	16.04	11.07	10.91	9.29			
GTE SOUTH INC. (TOTAL SOUTH GTE) 15/					11.91	12.61	11.50
48 GTE SOUTHWEST INC. (ARKANSAS ONLY - GTAR) 16/	3.55	(1.97)	(1.57)	0.65			
49 GTE SOUTHWEST INC. (NEW MEXICO ONLY - GTNM) 16/	24.24	24.60	17.18	10.00			

**INTERSTATE RATE OF RETURN SUMMARY
YEARS 1991 THROUGH 1997
PRICE CAP COMPANIES**

FINAL REPORTS FOR 1991, 1992, 1993, 1994, 1995, 1996 AND INITIAL REPORT FOR 1997

AS OF MAY 1, 1998.

REPORTING ENTITY	1997	1996	1995	1994	1993	1992	1991
50 GTE SOUTHWEST INC. (OKLAHOMA ONLY - GTOK) 16/	18.46	10.77	6.70	6.44			
51 GTE SOUTHWEST INC. (TEXAS ONLY - GTTX) 16/	15.04	11.53	7.11	7.24			
GTE SOUTHWEST INC. (TOTAL SOUTHWEST GTE) 16/					9.00	11.52	10.22
52 GTE SOUTHWEST INC. (TEXAS CONTEL) 10/	18.27	22.42	14.62	8.29	17.89	9.64	10.22
53 GTE SOUTHWEST INC. (CONTEL NEW MEXICO) 17/	48.86	42.53	47.29	27.57			
CONTEL OF THE WEST dba GTE WEST (ARIZONA ONLY - COWZ) 17/				14.86			
GTE WEST (WEST CONTEL) 17/					17.26	13.81	10.51
54 MICRONESIAN TELECOMMUNICATIONS CORP. 18/	20.06	15.49	7.49	2.53			
GTE NEW YORK (NEW YORK CONTEL) 19/					12.10	8.60	9.90
GSTC - NORTH (EAST NORTH CONTEL) 19/					15.51	10.15	10.36
SPRINT							
55 SPRINT LOCAL TELEPHONE COMPANIES - FLORIDA	20.05						
CENTRAL TELEPHONE OF FLORIDA 20/		17.85	17.16	15.93	14.66	11.44	
UNITED TELEPHONE CO. OF FLORIDA		19.79	19.28	17.63	14.44	12.27	13.00
56 CENTRAL TELEPHONE OF ILLINOIS 20/	18.92	18.40	19.55	18.87	10.18	11.54	
57 CENTRAL TELEPHONE OF NEVADA 20/	17.07	20.42	20.46	18.90	14.23	12.44	
58 CENTRAL TELEPHONE OF NORTH CAROLINA 20/	16.55	15.75	15.36	14.19	11.97	11.29	
59 CENTRAL TELEPHONE OF TEXAS 20/	43.40	21.58	21.81	18.39	16.19	14.94	
60 CENTRAL TELEPHONE OF VIRGINIA 20/	16.01	17.46	15.87	14.30	15.55	12.91	
61 CAROLINA TELEPHONE AND TELEGRAPH COMPANY	16.53	15.38	17.77	15.39	11.10	10.14	11.43
62 UNITED TELEPHONE CO. OF INDIANA, INC.	26.13	24.30	20.33	18.41	15.55	14.93	14.06
63 UNITED TELEPHONE - EASTERN (NJ & PA)	17.36	17.42	14.87	16.12	13.98	12.32	11.71
64 UNITED TELEPHONE CO. OF OHIO	13.17	16.12	15.93	16.54	13.15	12.33	12.75
65 UNITED TELEPHONE CO. OF THE NORTHWEST	30.59	34.55	34.17	29.32	19.39	17.72	17.27
66 UNITED TELEPHONE-MIDWEST (MO,KS,MN,NE,WY,TX)	15.50	21.52	19.64	17.44	13.92	15.35	14.57
67 UNITED TELEPHONE - SOUTHEAST (TN, VA & SC)	18.89	20.66	19.05	19.17	13.39	13.48	13.66
ALL OTHER COMPANIES							
68 ALIANT COMMUNICATIONS COMPANY 20/ 21/	12.27	14.95	16.09	15.47	14.95	12.36	
69 CINCINNATI BELL TELEPHONE COMPANY 22/	20.04						
70 CITIZENS TELECOMMUNICATIONS COS. (TARIFF 1) 23/	10.31	15.42					
71 CITIZENS TELECOMMUNICATIONS COS. (TARIFF 2) 23/	13.19	13.58					
72 FRONTIER TELEPHONE OF ROCHESTER, INC. 24/ 25/	13.19	10.20	11.87	12.02	11.63	12.11	11.82
73 FRONTIER TIER 2 CONCURRING COMPANIES 25/	31.93	26.91	19.32	17.69	16.42		
74 FRONTIER COMMUNICATIONS OF MINNESOTA & IOWA 25/ 26/	28.26	23.71	21.90	19.65	14.99	13.65	13.71
75 SOUTHERN NEW ENGLAND TELEPHONE COMPANY 24/	12.70	11.64	11.58	11.34	11.52	12.90	8.56

MAXIMUM RATE OF RETURN	48.86 %	42.53 %	47.29 %	32.60 %	22.33 %	17.72 %	17.27 %
MINIMUM RATE OF RETURN	(28.51)	(24.03)	(16.99)	(15.37)	7.05	8.51	8.54
WEIGHTED ARITHMETIC MEAN	15.64	15.15	14.02	13.58	13.12	12.42	11.78
STANDARD DEVIATION	4.09	3.64	3.03	2.59	1.76	0.96	1.49

**INTERSTATE RATE OF RETURN SUMMARY
YEARS 1991 THROUGH 1997
PRICE CAP COMPANIES**

FINAL REPORTS FOR 1991, 1992, 1993, 1994, 1995, 1996 AND INITIAL REPORT FOR 1997

- 1/ AT&T COMMUNICATIONS FILED INDIVIDUAL REPORTS FOR 1991 - 1994 NINETY DAYS AFTER END OF EACH CALENDAR YEAR. THE LOCAL TELEPHONE COMPANIES FILED FINAL REPORTS FOR EACH YEAR FIFTEEN MONTHS AFTER THE CALENDAR YEAR.
- 2/ BELL ATLANTIC FILED A REVISED 1997 REPORT APRIL 29, 1998.
- 3/ IN 1992, NYNEX STARTED TO FILE A COMBINED REPORT.
- 4/ SOUTHWESTERN BELL TELEPHONE COMPANY FILED A REVISED 1997 REPORT MAY 1, 1998.
- 5/ IT SHOULD BE NOTED THAT GTE IN 1993 CONSOLIDATED VARIOUS STUDY AREAS SO THAT SOME INDIVIDUAL COMPANY REPORTS MAY NOT BE TOTALLY CONSISTENT WITH PRIOR YEARS.
- 6/ IN 1994, GTE REPORTED MANY STUDY AREAS BY STATE. FOR THE GTE COMPANIES, GTE OF ALASKA, CALIFORNIA, FLORIDA, HAWAII, ILLINOIS, INDIANA, MICHIGAN, MISSOURI, NEBRASKA, OHIO, PENNSYLVANIA, AND WISCONSIN ARE THE ONLY STUDY AREAS THAT APPEAR CONSISTENT BETWEEN 1993 AND 1994.
- 7/ IN 1994, CONTEL OF CALIFORNIA, INC., WAS SEPARATED AND BECAME CONTEL OF CALIFORNIA (CALIFORNIA ONLY - COCA); CONTEL OF CALIFORNIA (AZ ONLY - COAZ); AND CONTEL OF NEVADA (NV ONLY - CONV). NAMES WERE CHANGED TO GTE CALIFORNIA, INC., (CALIFORNIA CONTEL), GTE CALIFORNIA, INC., (ARIZONA CONTEL), AND GTE CALIFORNIA, INC., (NEVADA CONTEL) IN 1996.
- 8/ IN 1994, GSTC - SOUTH (EAST SOUTH CONTEL) WAS SEPARATED AND BECAME GTE SOUTH, INC., (KENTUCKY ONLY - COKY); GTE SOUTH, INC. (N. CAROLINA ONLY - CONC); GTE SOUTH, INC. (S. CAROLINA ONLY - COSC); GTE SOUTH, INC., (VIRGINIA ONLY - COVA); AND GTE SYSTEMS OF THE SOUTH (COAL ONLY). THE PROPERTY FOR GEORGIA WHICH WAS ALSO INCLUDED IN 1993 WAS SOLD AND WAS NOT INCLUDED IN 1994.
- 9/ IN 1994, GSTC - CENTRAL REGION (CENTRAL CONTEL) WAS SEPARATED AND BECAME GTE NORTH, INC., (ILLINOIS CONTEL); GTE NORTH, INC., (INDIANA CONTEL); GTE MIDWEST, INC., (CONTEL IOWA COIA - COSI); GTE MIDWEST, INC., (CONTEL MISSOURI COMO - COCM - COEM); TOTAL CONTEL ARKANSAS (COAR - COSA); AND CONTEL OF MINNESOTA - COMN. IN 1996, TOTAL CONTEL ARKANSAS NAME CHANGED TO GTE ARKANSAS, INC.
- 10/ FOR THE GTE CONTEL COMPANIES, GTE PENNSYLVANIA (CONTEL) AND GTE TEXAS (CONTEL) ARE THE TWO COMPANIES THAT APPEAR CONSISTENT BETWEEN 1993 AND 1994. IN 1995, GTE OF PENNSYLVANIA (CONTEL) NAME CHANGED TO GTE NORTH, INC., (COPA - COQS), AND GTE TEXAS (CONTEL) NAME CHANGED TO GTE SOUTHWEST, INC., (TEXAS CONTEL).
- 11/ IN 1994, GTE OF THE NORTH, INC., (TOTAL IA + MN GTE) WAS SEPARATED AND BECAME GTE MIDWEST, INC. (IOWA ONLY - GTIA) AND CONTEL MINNESOTA - GTMN.
- 12/ IN 1994, GTE OF THE NORTHWEST, INC., (TOTAL OR + WA - NWCA GTE) WAS SEPARATED AND BECAME GTE OF THE NORTHWEST, INC. (OREGON ONLY - GTOR); GTE OF THE NORTHWEST, INC., WASHINGTON ONLY - GTWA); AND WEST COAST TELEPHONE CO. OF CALIFORNIA - GNCA. IN 1995 GTE OF THE NORTHWEST, INC. (CONTEL OREGON - COOR) MERGED WITH GTE OF THE NORTHWEST, INC. (OREGON ONLY - GTOR).
- 13/ IN 1994, GTE OF THE NORTHWEST, INC., (TOTAL ID - MT GTE) WAS SEPARATED AND BECAME GTE OF THE NORTHWEST, INC. (IDAHO ONLY - GTID) AND GTE OF THE NORTHWEST, INC., (MONTANA ONLY - GTMT). GTE OF THE NORTHWEST, INC., (MONTANA ONLY - GTMT) DID NOT FILE A 1995 REPORT SINCE THEIR PROPERTY WAS SOLD.
- 14/ IN 1994, GTE SYSTEMS OF NORTHWEST (NORTHWEST CONTEL) WAS SEPARATED AND BECAME GTE NORTHWEST, INC., (CONTEL OREGON - COOR); AND GTE NORTHWEST, INC., (CONTEL WASHINGTON ONLY - COWA) in 1995, GTE OF THE NORTHWEST, INC., (CONTEL OREGON - COOR) MERGED WITH GTE OF THE NORTHWEST, INC. (OREGON ONLY - GTOR).
- 15/ IN 1994, GTE SOUTH, INC., (TOTAL SOUTH GTE) WAS SEPARATED AND BECAME GTE SOUTH, INC. (ALABAMA ONLY - GTAL); GTE SOUTH, INC., (KENTUCKY ONLY - GTKY); GTE SOUTH, INC., (NORTH CAROLINA ONLY - GTNC); GTE SOUTH, INC., (SOUTH CAROLINA ONLY - GTSC); AND GTE SOUTH, INC., (VIRGINIA ONLY - GTVA). THE PROPERTIES FOR GEORGIA, TENNESSEE, AND WEST VIRGINIA WHICH WERE INCLUDED IN GTE SOUTH, INC., IN 1993, WERE NOT INCLUDED IN 1994 BECAUSE THESE PROPERTIES WERE SOLD.
- 16/ IN 1994, GTE SOUTHWEST, INC., (TOTAL SOUTHWEST GTE) WAS SEPARATED AND BECAME GTE SOUTHWEST, INC. (ARKANSAS ONLY - GTAR); GTE SOUTHWEST, INC., (NEW MEXICO ONLY - GTNM); GTE SOUTHWEST, INC., (OKLAHOMA ONLY - GTOK); AND GTE SOUTHWEST, INC., (TEXAS ONLY - GTTX).
- 17/ IN 1994, GTE WEST (WEST CONTEL) WAS SEPARATED AND BECAME CONTEL OF THE WEST (NEW MEXICO ONLY - CONM); AND CONTEL OF THE WEST dba GTE WEST (ARIZONA ONLY - COWZ). UTAH WHICH WAS INCLUDED IN 1993 WAS NOT INCLUDED IN 1994; THEIR PROPERTY WAS SOLD. CONTEL OF THE WEST dba GTE WEST (ARIZONA ONLY - COWZ) PROPERTY WAS SOLD SO DID NOT FILE A 1995 REPORT. IN 1995, CONTEL OF THE WEST (NEW MEXICO ONLY - CONM) CHANGED ITS NAME TO GTE SOUTHWEST, INC., (CONTEL NEW MEXICO.)
- 18/ MICRONESIAN TELECOMMUNICATIONS CORP. FILED A RATE OF RETURN REPORT FOR THE FIRST TIME IN 1994.
- 19/ GTE NEW YORK (NEW YORK CONTEL) AND GSTC - NORTH (EAST NORTH CONTEL) DID NOT FILE IN 1994; THEIR PROPERTY WAS SOLD.
- 20/ THE CENTEL COMPANIES AND LINCOLN TELEPHONE AND TELEGRAPH COMPANY REPORTED SUBJECT TO PRICE CAPS BEGINNING 7/1/93. RATE OF RETURN FOR 1993 IS FOR THE FILING PERIOD JULY THROUGH DECEMBER. FOR 1992, INFORMATION FOR THE CENTEL COMPANIES AND FOR THE LINCOLN TELEPHONE & TELEGRAPH COMPANY IS FROM THEIR FINAL NON-PRICE CAP REPORT FILED 9/30/93 FOR THE TWO-YEAR 1992 MONITORING PERIOD 1991-1992.
- 21/ IN 1996, LINCOLN TELEPHONE AND TELEGRAPH COMPANY CHANGED ITS NAME TO ALIANT COMMUNICATIONS COMPANY.
- 22/ CINCINNATI BELL TELEPHONE COMPANY WENT PRICE CAP IN 1997.
- 23/ THE CITIZENS TELECOMMUNICATIONS COS. BECAME PRICE CAP JULY 1, 1996; REPORTING PERIOD FOR 1996 IS JULY 1, 1996 - DECEMBER 31, 1996. RATES FOR 1996 ARE FROM THE INITIAL REPORT.
- 24/ ROCHESTER TELEPHONE CORPORATION AND SOUTHERN NEW ENGLAND TELEPHONE COMPANY REPORTED SUBJECT TO PRICE CAPS BEGINNING 7/1/91. THE RATE OF RETURN REPORT FOR EACH IS FOR THE FILING PERIOD JULY 1, 1991 THROUGH DECEMBER 31, 1991.
- 25/ THE ROCHESTER TELEPHONE CORPORATION, ROCHESTER TELEPHONE SUBSIDIARIES AND FRONTIER COMMUNICATIONS OF MINNESOTA & IOWA (NAME CHANGED IN 1994 FROM VISTA COMMUNICATIONS CO. OF MINNESOTA AND IOWA) DID NOT HAVE ANY CHANGES TO THEIR ORIGINAL REPORT SO THEY DID NOT FILE A FINAL REPORT ON MARCH 31, 1995 FOR 1993.
- 26/ VISTA TELEPHONE COMPANIES, NOW KNOWN AS FRONTIER COMMUNICATIONS OF MINNESOTA AND IOWA, FILED BY ROCHESTER TELEPHONE COMPANY AS OF 7/1/92. FOR 1992, THE RATE OF RETURN IS FOR 7/1/92-12/31/92 WHEN THEY REPORTED SUBJECT TO PRICE CAP REGULATION. FOR 1991, VISTA FILED A RATE OF RETURN REPORT FOR VISTA TELEPHONE COMPANY OF IOWA AND VISTA TELEPHONE TELEPHONE COMPANY OF MINNESOTA; THESE HAVE BEEN COMBINED IN THE TABLE.

E

Attachment E

**Revenue Amounts Needed to Adjust
Price Cap LECs' Interstate Rates of Return
in 1997 to Commission-Prescribed Return**

<u>Price Cap LEC</u>	<u>Amount to Adjust 1997 Interstate Earnings to 11.25 Percent *</u> (000)	
Ameritech	\$330,197	
Bell Atlantic (incl. NYNEX)	408,190	
BellSouth	527,762	
SBC (incl. Pacific Bell & Nevada Bell)	(13,218)	
US West	<u>254,176</u>	
Total RBOCs	<u>\$1,507,107</u>	(14.78% Rate of Return)
Total -- Other Price Cap LECs	<u>\$ 888,837</u>	(18.76% Rate of Return)
Total -- All Price Cap LECs	<u>\$2,395,944</u>	(15.64% Rate of Return)

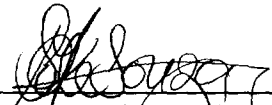
* Calculated on basis of FCC Rate of Return Summary, Jan. 1, 1997 - Dec. 31, 1997, Summary of Initial Price-Cap Carriers' Reports (revised as of May 1, 1998). The amounts shown represent the reductions in the price cap LECs' interstate revenues that would bring their interstate rates of return to the 11.25% level, and are calculated as follows:

$$(\text{Actual earnings} - \text{Earnings at 11.25\%}) / (1 - \text{Tax rate})$$

where earnings at 11.25% are equal to the LECs' average net interstate investment for the year times 11.25%, and the assumed tax rate is 40%.

CERTIFICATE OF SERVICE

I, Cassandra M. de Souza, do hereby certify that I caused a copy of the foregoing Comments of AT&T Corp. to Update and Refresh the Record to be served this 26th day of October, 1998, by First Class mail on all parties on the attached service list.



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